

music, based upon whether music is Intense, Happy, Sad, Mellow, Romantic, Heartbreaking, Aggressive, or other emotions.

3. (Previously Amended) The system of Claim 1, wherein one of said plurality of feature vectors comprises a vocal quality vector describing the vocal quality of music, based upon whether music includes a Smooth voice, a Powerful voice, a Great voice, a Soulful voice, or other voice qualities.

4. (Previously Amended) The system of Claim 1, wherein one of said plurality of feature vectors comprises a sound quality vector describing the sound quality of music, based upon whether music includes a Strong beat, or is simple, or has a good groove, or is fast, or is speech like, or emphasizes a melody, or other sound qualities.

5. (Previously Amended) The system of Claim 1, wherein one of said plurality of feature vectors comprises a situational quality vector describing the plural situations for which the music may be used, based on whether the music is, good for a workout, a shopping mall, a dinner party, a dance party, for slow dancing, or for studying or other situations.

6. (Previously Amended) The system of Claim 1, wherein one of said plurality of feature vectors comprises a genre vector describing the music genre, based on whether the music is belongs to a plurality of genres including, Alternative, Blues, Country, Electronic/Dance, Folk, Gospel, Jazz, Latin, New Age, R&B, Soul, Rap, Hip-Hop, Reggae, Rock or others.

7. (Previously Amended) The system of Claim 1, wherein one of said plurality of feature vectors comprises an ensemble vector describing the music ensemble, based on whether the music includes a female solo, male solo, female duet, male duet, mixed duet, female group, male group or instrumental.

8. (Previously Amended) The system of Claim 1, wherein one of said plurality of feature vectors comprises an instrument vector describing the music instruments, based on whether the music includes a includes an acoustic guitar, electric guitar, bass, drums, harmonica, organ, piano, synthesizer, horn, or saxophone or other instruments.

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9. (Previously Amended) The system of Claim 1, further comprising a plurality of input mixers for allowing said user to dynamically update said search parameters.

10. (Previously Amended) The system of Claim 9, wherein said plurality of input mixers comprises input mixers taken from the group consisting of a genre mixer, a voice quality mixer, an emotional quality mixer, an instrument mixer and a sound quality mixer.

11. (Previously Amended) The system of Claim 1, further comprising a user interface for receiving a plurality of user inputs defining said search parameters.

12. (Previously Amended) The system of Claim 1, wherein said plurality of feature vectors are stored in a production database.

13. (Previously Amended) The system of Claim 1, wherein said inferential engine comprises a modeling module for performing a similarity analysis to determine a function for representing the similarity between said plural music samples.

14. (Previously Amended) The system of Claim 1, wherein each of said plurality of feature vectors are formulated using responses to a plurality of questions asked of a plurality of music listeners after said plurality of music listeners are played a plurality of music samples.

15. (Previously Amended) A system for searching music based upon music content, comprising:

a user interface for receiving a user request for a music playlist, said user request being formulated into a search vector value;

a plurality of feature vectors defining feature vector values corresponding to perceived attributes of music; and

an inferential search engine for generating a playlist of selected music, said music selection being made by comparing said plurality of feature vector values to said search vector value.

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16. (Previously Amended) The system of Claim 15, wherein said user interface comprises a parser for parsing the user requests, wherein the parser is a XML parser.

17. (Previously Amended) The system of Claim 15, wherein the user request comprises standard query language (SQL) calls.

19. (Previously Amended) The system of Claim 15, further comprising:  
a modeling module for creating a music space by performing a similarity analysis of said feature vector values, wherein said similarity analysis establishes a boundary for said music space, said feature vector values indicating a location for said music within said music space and wherein said comparison of said feature vector values to said search vector value comprises determining the proximity of said music locations to a location within said music space indicated by said search vector value.

20. (Previously Amended) A system for creating a music space, comprising:  
a plurality of feature vectors defined by a first set of music attributes allocated to a music piece; and  
a modeling module which creates a plurality of music spaces by performing a similarity analysis of said feature vectors, said similarity analysis establishing boundaries for said music spaces.

21. (Previously Amended) The system of Claim 20, wherein one of said plurality of feature vectors comprises an emotional quality vector describing the emotional reaction to music, based upon whether music is Intense, Happy, Sad, Mellow, Romantic, Heartbreaking, Aggressive, or other emotions.

22. (Previously Amended) The system of Claim 20, wherein one of said plurality of feature vectors comprises a vocal quality vector describing the vocal quality of music, based upon whether music includes a Smooth voice, a Powerful voice, a Great voice, a Soulful voice, or other voice qualities.

23. (Previously Amended) The system of Claim 20, wherein one of said plurality of feature vectors comprises a sound quality vector describing the sound quality of music,

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based upon whether music includes a Strong beat, or is simple, or has a good groove, or is fast, or is speech like, or emphasizes a melody, or other sound qualities.

24. (Previously Amended) The system of Claim 20, wherein one of said plurality of feature vectors comprises a situational quality vector describing the plural situations for which the music may be used, based on whether the music is, good for a workout, a shopping mall, a dinner party, a dance party, for slow dancing, or for studying or other situations.

25. (Previously Amended) The system of Claim 20, wherein one of said plurality of feature vectors comprises a genre vector describing the music genre, based on whether the music is belongs to a plurality of genres including, Alternative, Blues, Country, Electronic/Dance, Folk, Gospel, Jazz, Latin, New Age, R&B, Soul, Rap, Hip-Hop, Reggae, Rock or others.

26. (Previously Amended) The system of Claim 20, wherein one of said plurality of feature vectors comprises an ensemble vector describing the music ensemble, based on whether the music includes a female solo, male solo, female duet, male duet, mixed duet, female group, male group or instrumental.

27. (Previously Amended) The system of Claim 20, wherein one of said plurality of feature vectors comprises an instrument vector describing the music instruments, based on whether the music includes a includes an acoustic guitar, electric guitar, bass, drums, harmonica, organ, piano, synthesizer, horn, or saxophone or other instruments.

28. (Previously Amended) The system of Claim 20, wherein said plurality of music spaces are combined to define a combined music space.

29. The system of Claim 28, wherein said plurality of feature vectors comprises at least two feature vectors taken from the group consisting of an emotional quality vector, a vocal quality vector, a sound quality vector, an ensemble quality vector, a genre vector, an instrument vector, and a situational vector, wherein said combined music space comprises music spaces corresponding to said at least two feature vectors.

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